

LAND USE CONTROL/ INSTITUTIONAL CONTROL WORKSHEET

**The Former Kelly AFB
San Antonio, Texas**

10-Jan-2003

LUC/IC LAYERING STRATEGY WORKSHEET

Former Kelly AFB

1. Purpose

The environmental cleanup documents for the former Kelly AFB have identified land use controls/institutional controls (LUC/ICs) that support the remedial action. The goal of the LUC/ICs is to either protect the integrity of the remedial action or to prevent or manage exposure to the contamination through establishing use restrictions or controls on the property.

The purpose of this layering strategy worksheet is to identify the combination of mutually reinforcing mechanisms used to implement and establish the LUC/ICs needed to ensure that residual contamination at the sites under consideration do not present an unreasonable threat to human health and the environment until unrestricted use is appropriate. Identifying the layers of overlapping mechanisms or vehicles that implement or establish the LUC/ICs can increase the number of parties involved, strengthen the network that maintains the remedy, strengthen the overall integrity of the system of the controls, and, ultimately, ensure the protectiveness of the remedy. Once documented, the Air Force will use this information to develop the LUC/IC Management Plan for the former Kelly AFB.

This worksheet will identify planned reuses and characterize residual contamination above levels enabling unrestricted use as a first step in determining the risk factors that need to be specifically controlled (e.g., exposure to contaminated soil). Once the risk factors have been identified, a strategy of mutually reinforcing mechanisms to establish the LUC/ICs for each parcel at the installation (e.g., a combination of use restrictions in deeds, physical barriers, and notice to interested parties) will be designed and described. The mechanisms that have been selected will be incorporated into an LUC/IC Management Plan, which will summarize the implementation, monitoring, and enforcement needed for each control.

Note: This Layering Strategy Worksheet is a living document that should be reevaluated periodically when information indicates the existing controls are not effective or changes in site conditions would lead to new or different controls.

2. Planned Reuses

Since the former Kelly AFB property was mixed use including housing, residential, industrial, warehouse, and administrative purposes, the planned reuses of the property fall primarily into these categories. There are some military family housing (MFH) units on the property. The surplus MFH will be conveyed to the city of San Antonio (COSA) using a homeless assistance conveyance, while the non-surplus MFH will be covered under a leaseback conveyance. The reuse selection is provided in Table 1. It is assumed that the homeless assistance conveyance is a form of a public benefit conveyance and the governmental agency responsible for use restrictions is the COSA.

Table 1 identifies the planned reuses at the former Kelly AFB. Table 1 also identifies the sponsoring Federal agencies if any of the parcels are to be conveyed using a public benefit conveyance.

Table 1: Reuse Selection for the Former Kelly AFB

All Planned Reuses for Installation		Y/N	Public Benefit Conveyance Responsible Agency* (if any)
Residential			
	Housing	Y	COSA
	Daycare	Y	GKDA
	Hospitals	N	
	Schools	N	
	Other	N	
Commercial		Y	GKDA
Industrial		Y	GKDA
Recreation		Y	GKDA
Agriculture		N	
Airport		N	
[Other]		N	

* Responsible Agency is only identified for public benefit conveyances

COSA = City of San Antonio

GKDA = Greater Kelly Development Authority

3. Site Description

The largest areas of contamination associated with the former Kelly AFB are associated with the shallow groundwater on and around the former base property. There are 11 sites, which are contributors to the shallow groundwater contamination. These sites are grouped into 3 major plume areas. The Southern plume area contains WP022, SS036, SS037, ST006 and SS038. The Eastern plume area contains SS040, SS051, and SS052. The Northern Plume area contains SS003 and SS050. In addition to the sites, there are two buildings and associated contaminated property that are potential long-term sites. The buildings are designated B360 and the former B301. These sites are shown on a map in Attachment A. Table 2 identifies residual contamination remaining at the former Kelly AFB sites, and the LUC/IC goals and objectives that must be achieved to prevent exposure to that residual contamination.

**Table 2: Former Kelly AFB Environmental Conditions
and LUC/IC Objectives/Goals***

Site(s)/AOC(s)	Affected Parcel(s)	Residual Contamination	LUC/IC Objective/Goal
Northern Groundwater Plume on- and off-Base area: SS050 (Zone 5 Plume Site) and Sites SS003 and SS045, (Zone 5)	Parcel 11 (Former Parcel E)**	Shallow groundwater	Prevent exposure to contaminated groundwater.
			Prevent activities that could result in migration of contamination and adverse impacts on adjoining property.
			Protect the integrity of the remedy.
Southern Groundwater Plume on Base Area: SS036 (Zone 2 Plume Site) and Sites WP021, WP022 (Zones 2 sites)	Parcel 12 (Former Parcel B) **	Shallow groundwater	Prevent exposure to contaminated groundwater.
			Prevent activities that could result in migration of contamination and adverse impacts on adjoining property.
			Protect the integrity of the remedy.
Southern Groundwater Plume on Base Area: SS036 (Zone 2 Plume Site) and Sites WP021, WP022 (Zones 2 sites)	Parcel 12	Surface Water and Sediment	Prevent exposure to contaminated surface water..
			Prevent activities that could result in migration of contamination and adverse impacts on adjoining property.
Eastern Groundwater Plume on- and off-Base area: SS037 (Zone 3 Plume Site) and Sites SS040, SS038, ST006, Bldg 360, Bldg 301, SS052 (Zones 3 and 4)	Parcels 13 and 14 (Former Parcel D)**	Shallow groundwater	Prevent exposure to contaminated groundwater.
			Prevent activities that could result in migration of contamination and adverse impacts on adjoining property.
			Protect the integrity of the remedy.
ST010 (Fuel Site S-9)	Parcel 10 (Former Parcel B)**	Soils	Prevent exposure to contaminated groundwater.
			Prevent activities that could result in migration of contamination and adverse impacts on adjoining property.
			Protect the integrity of the remedy.
SS031 (Sludge Area, SA-3)	Parcel 10	Soils	Prevent exposure to contaminated groundwater.
			Prevent activities that could result in migration of contamination and adverse impacts on adjoining property.
			Protect the integrity of the remedy.
SS032 (Sludge	Parcel 10	Soils	Prevent exposure to contaminated groundwater.

Site(s)/AOC(s)	Affected Parcel(s)	Residual Contamination	LUC/IC Objective/Goal
Area, SA-4)			Prevent activities that could result in migration of contamination and adverse impacts on adjoining property.
			Protect the integrity of the remedy.
FT024 (Fire Training Area, FC-2)	Parcel 10	Soils	Prevent exposure to contaminated groundwater.
			Prevent activities that could result in migration of contamination and adverse impacts on adjoining property.
			Protect the integrity of the remedy.
SS003 (Former DPDO Waste Oil Storage Facility, S-1)	Parcel 11	Soils	Prevent exposure to contaminated soils.
			Prevent activities that could result in migration of contamination and adverse impacts on adjoining property.
			Protect the integrity of the remedy.
SS045 (Fuel Spill Site S-10)	Parcel 11	Soils	Prevent exposure to contaminated soils.
			Prevent activities that could result in migration of contamination and adverse impacts on adjoining property.
			Protect the integrity of the remedy.

Site(s)/AOC(s)	Affected Parcel(s)	Residual Contamination	LUC/IC Objective/Goal
LF019 (Landfill Site D-10)	Parcel 12	Soils	Prevent exposure to contaminated soils.
			Prevent activities that could result in migration of contamination and adverse impacts on adjoining property.
			Protect the integrity of the remedy.
SS002 (Former IWTP)	Parcel 12	Soils	Prevent exposure to contaminated soils.
			Prevent activities that could result in migration of contamination and adverse impacts on adjoining property.
			Protect the integrity of the remedy.
SS005 (Storage Yard Site S-3)	Parcel 12	Soils	Prevent exposure to contaminated soils.
			Prevent activities that could result in migration of contamination and adverse impacts on adjoining property.
			Protect the integrity of the remedy.
SS028 (HW Storage Yard S-4A)	Parcel 12	Soils	Prevent exposure to contaminated soils.
			Prevent activities that could result in migration of contamination and adverse impacts on adjoining property.
			Protect the integrity of the remedy.
SS039 (Incinerator Site, OT-1)	Parcel 12	Soils	Prevent exposure to contaminated soils.
			Prevent activities that could result in migration of contamination and adverse impacts on adjoining property.
			Protect the integrity of the remedy.
SS042 (Spill Site, CS-2)	Parcel 12	Soils	Prevent exposure to contaminated soils.
			Prevent activities that could result in migration of contamination and adverse impacts on adjoining property.
			Protect the integrity of the remedy.
WP021 (Chemical Evaporation Pit, E-3/SD-1)	Parcel 12	Soils	Prevent exposure to contaminated soils.
			Prevent activities that could result in migration of contamination and adverse impacts on adjoining property.
			Protect the integrity of the remedy.
WP022 (Site E-3 former evaporation pit)	Parcel 12	Soils	Prevent exposure to contaminated soils.
			Prevent activities that could result in migration of contamination and adverse impacts on adjoining property.
			Protect the integrity of the remedy.
WP034 (Sludge Bed, SD-2)	Parcel 12	Soils	Prevent exposure to contaminated soils.
			Prevent activities that could result in migration of contamination and adverse impacts on adjoining property.
			Protect the integrity of the remedy.
SS040 (Plating Shop, OT-2, Site MP)	Parcel 13	Soils	Prevent exposure to contaminated soils.
			Prevent activities that could result in migration of contamination and adverse impacts on adjoining property.

Site(s)/AOC(s)	Affected Parcel(s)	Residual Contamination	LUC/IC Objective/Goal
			Protect the integrity of the remedy.
ST006 (Spill Site S-4)	Parcel 13	Soils	Prevent exposure to contaminated soils.
			Prevent activities that could result in migration of contamination and adverse impacts on adjoining property.
			Protect the integrity of the remedy.
SS038 (Spill Site S-8)	Parcel 13	Soils	Prevent exposure to contaminated soils.
			Prevent activities that could result in migration of contamination and adverse impacts on adjoining property.
			Protect the integrity of the remedy.
SS044 (IWC line, OT044)	Parcel 13	Soils	Prevent exposure to contaminated soils.
			Prevent activities that could result in migration of contamination and adverse impacts on adjoining property.
			Protect the integrity of the remedy.
Building 360, Zone 3	Parcel 13	Soils	Prevent exposure to contaminated soils.
			Prevent activities that could result in migration of contamination and adverse impacts on adjoining property.
			Protect the integrity of the remedy.
Former Building 301, Zone 3	Parcel 13	Soils	Prevent exposure to contaminated soils.
			Prevent activities that could result in migration of contamination and adverse impacts on adjoining property.
			Protect the integrity of the remedy.
SS051	Parcel 14	Soils	Prevent exposure to contaminated soils.
			Prevent activities that could result in migration of contamination and adverse impacts on adjoining property.
			Protect the integrity of the remedy.

* Only sites with residual contamination that prevent unrestricted use are listed in Table 2.

** Parcels defined in the Final BRAC Cleanup Plan, December 1999.

AOC = Area of Concern

BRAC = Base Realignment and Closure

4. Objectives and Layering Strategy

Column A of Table 3 is a list of potential vehicles for establishing or implementing the LUC/ICs. Column B identifies those that are potentially available at the former Kelly AFB given the environmental condition of the site. Column C identifies those that can actually be implemented at the former Kelly AFB. (Note: Mechanisms establishing or implementing LUC/ICs identified in Column C will be carried forward to Table 4). Column D identifies detailed Point of Contact (POC) information for the federal, state, local, and private entities that will be involved in the design, implementation, operation, and/or enforcement of the LUC/ICs to be implemented at the former Kelly AFB.

Table 3: Former Kelly AFB LUC/IC Layering Strategy Checklist

COLUMN A	B	C	D
Property Law /Proprietary Controls	Potential	Confirmed	Points of Contact (Organization, Personnel, Phone Number, Address, E-Mail) Type designator (G=Grantee, K=Govt. or Key Stakeholder)
Use Restrictions in Deed - Easements - Covenants - Reversionary Interests (e.g., public benefit conveyance for parks, education, airports, etc.)	X	X	<ul style="list-style-type: none"> • GKDA, Executive Director, (Bruce Miller) (210) 362-7800, 143 Billy Mitchell Blvd. Bldg 43, Suite 6, San Antonio, TX 78226 (G) • Bexar County, Bexar County Clerk (Gerry Rickhoff), (210) 335-2216, 100 Dolorosa, Number 108, San Antonio, TX , 78205, (K) • COSA, Community Initiatives Department, Director, (Dennis J. Campa), (210) 207-8198, 115 Plaza de Armas, San Antonio, TX, 78205 (K) <i>(for Calgary Units)</i>
Leaseback	X	X	<ul style="list-style-type: none"> • Lackland 37th Civil Engineering Squadron
Utility Easements	X	X	<ul style="list-style-type: none"> • SAWS, CPS, Bexar Met, SBC, Time Warner, Lackland (and their tenants - Red Horse, National Park Service) • Get list of known easement holders (from Bob Lee or Indar Schabra)

Governmental Controls	Potential	Confirmed	Points of Contact (Organization, Personnel, Phone Number, Address, E-Mail) Type designator (G=Grantee, K=Govt. or Key Stakeholder)
Zoning restrictions/ requirements	X	X	<ul style="list-style-type: none"> • COSA, Planning Department, Director, (Emil Moncivais), (210) 207-7951, Municipal Plaza Building, 114 West, San Antonio, TX 78205 (K)
Local Ordinances/Master Plans restricting use	X	X	<ul style="list-style-type: none"> • COSA, Planning Department, Director, (Emil Moncivais), (210) 207-7951, Municipal Plaza Building, 114 West, San Antonio, TX 78205 (K)
Provide Public Notices/Advisories (e.g., fishing advisories)	X		<ul style="list-style-type: none"> • San Antonio Metropolitan Health District, Environmental Health Division, Environmental Health Administrator, (Sam Sanchez), (210) 207-8853, 332 W. Commerce St., Suite 101, San Antonio, TX, 78205-2489 (K)
State Environmental Land Use Restriction Covenants	X	X	<ul style="list-style-type: none"> • TCEQ, Remediation Division, Project Manager, (Mark Weegar), (512) 239-2360, 12100 Park 35 Circle, Bldg D, Austin, TX 78753 (K)
State NEPA Laws (e.g., California Environmental Quality Act)	N/A		<ul style="list-style-type: none"> •
Groundwater use restrictions	X	X	<ul style="list-style-type: none"> • COSA, Environmental Services Department, Environmental Management Division, Manager, (Mr. David Newman), (210) 207-6441, 1940 Grandstand, San Antonio, TX 78238 (K) • SAWS, Water Quality Division
Well installation restrictions in zone of contamination	X		<ul style="list-style-type: none"> • SAWS Water Quality Division • Bexar Metropolitan Water District
Well installation restrictions in areas that may influence the remedial system	X		<ul style="list-style-type: none"> • SAWS Water Quality Division • Bexar Metropolitan Water District • TCEQ, Remediation Division, Project Manager (Mark Weegar), (512) 239-2360, 12100 Park 35 Circle, Bldg D, Austin, TX 78753 (K)

Water reuse restrictions (e.g., irrigation, watering, livestock, recreational uses, including fishing)	X	X	<ul style="list-style-type: none"> SAWS Water Quality Division TCEQ, Remediation Division, Project Manager (Mark Weegar), (512) 239-2360, 12100 Park 35 Circle, Bldg D, Austin, TX 78753 (K)
Measures to control excavation, construction, drilling, or disturbance of soil in impacted areas. May consider depth depending on residual contamination.	X	X	<ul style="list-style-type: none"> GKDA, Executive Director, (Bruce Miller), (210) 362-7800, 143 Billy Mitchell Blvd., Bldg 43, Suite 6, San Antonio, TX, 78226 (G)
Environmental laws regarding reuse of impacted soil.	X		<ul style="list-style-type: none"> TCEQ, Region 13, (Abigail Power), (210) 490-3096, 14250 Judson Road, San Antonio, TX, 78233-4480 (K)
Local/State ordinances requiring notice before disturbance of surface cover	N/A		<ul style="list-style-type: none">
Measures to control construction activities (i.e., utility lines, sewers, etc) in areas of contaminated groundwater that may impact the remedial strategy	N/A		<ul style="list-style-type: none">

Site Controls	Potential	Confirmed	Points of Contact (Organization, Personnel, Phone Number, Address, E-Mail) Type designator (G=Grantee, K=Govt. or Key Stakeholder)
Install fence or other physical barriers to restrict site access	X	X	<ul style="list-style-type: none"> Air Force, AFRPA/DK-Kelly, Senior Rep. (Adam Antwine), (210) 925-5457, 143 Billy Mitchell Blvd., Suite 1, San Antonio, TX 78226-1816 (K)
Maintain security (guards, monitoring/surveillance system) to restrict site access	N/A		<ul style="list-style-type: none">
Install signage and warnings regarding residual contamination	X	X	<ul style="list-style-type: none"> Air Force, AFRPA /DK-Kelly, Senior Rep. (Adam Antwine), (210) 925-5457, 143 Billy Mitchell Blvd., Suite 1, San Antonio, TX 78226-1816 (K)
Inspect and monitor remedial systems	X	X	<ul style="list-style-type: none"> Air Force, AFRPA /DK-Kelly, Senior Rep. (Adam Antwine), (210) 925-5457, 143 Billy Mitchell Blvd., Suite 1, San Antonio, TX 78226-1816 (K)
Install and monitor locking caps on wells	X	X	<ul style="list-style-type: none"> Air Force, AFRPA /DK-Kelly, Senior Rep. (Adam Antwine), (210) 925-5457, 143 Billy Mitchell Blvd., Suite 1, San Antonio, TX 78226-1816 (K)
Monitor and inspect wells in impacted areas regularly	X	X	<ul style="list-style-type: none"> Air Force, AFRPA /DK-Kelly, Senior Rep. (Adam Antwine), (210) 925-5457, 143 Billy Mitchell Blvd., Suite 1, San Antonio, TX 78226-1816 (K)

Other	Potential	Confirmed	Points of Contact (Organization, Personnel, Phone Number, Address, E-Mail) Type designator (G=Grantee, K=Govt. or Key Stakeholder)
Deed Notices	X	X	<ul style="list-style-type: none"> Bexar County, Bexar County Clerk, (Gerry Rickhoff), (210)-335-2216, 100 Dolorosa, Number 108, San Antonio, TX , 78205 (K)
Incorporate use restrictions into Airport Layout Plan	N/A		<ul style="list-style-type: none">
Health and Safety Program, PPE for any construction activities	N/A		<ul style="list-style-type: none">

State hazardous waste site registries and other registry databases	N/A		•
Notify utility purveyors and join “Dig-Safe” type programs	X	X	• GKDA, Executive Director, (Bruce Miller) (210) 362-7800, 143 Billy Mitchell Blvd. Bldg 43, Suite 6, San Antonio, TX 78226 (G)
Co-op, Condo Association, and Homeowner Association use restrictions	N/A		•
Maintain Administrative Record	X	X	• Air Force, AFRPA/DK-Kelly, Senior Rep. (Adam Antwine), (210) 925-5457, 143 Billy Mitchell Blvd., Suite 1, San Antonio, TX 78226-1816 (K)
Maintain information repositories	X	X	• Air Force, AFRPA/DK-Kelly, Senior Rep. (Adam Antwine), (210) 925-5457, 143 Billy Mitchell Blvd., Suite 1, San Antonio, TX 78226-1816 (K)

COSA = City of San Antonio

GKDA = Greater Kelly Development Authority

SAWS = San Antonio Water Systems

NEPA = National Environmental Policy Act

TCEQ = Texas Commission on Environmental Quality

N/A = Not Available

Table 4 provides installation-specific information on the types and combinations of vehicles/mechanisms that establish the LUC/ICs put in place to address risks associated with residual contamination at the site, and the prioritization of each control according to the following criteria:

LUC/IC Layering Mechanism Prioritization Criteria:

Some mechanisms available to help establish and ensure compliance with the use restriction or land use control will be more effective than others and should receive more attention in order to ensure their usefulness is optimized. For example, if the use restriction is intended to prevent the development of wells and there is an active well permitting program, obtaining the cooperation of the well permitting agency would substantially improve the probability the use restriction would remain effective. In such cases, the Air Force may not only provide initial information to the well permitting agency but may choose to periodically reinforce the need for the agency's cooperation and regularly verify their notice of the restrictions affecting the property. The Air Force through this evaluation and prioritization process can design a program of reinforcement notices and information which focuses on the most effective mechanisms.

Priority 1: Strong correlation between the mechanism's effectiveness and the specific activity the use restriction is intended to address. Initial communication of appropriate materials (see communication strategy), followed by direct contact to ensure the appropriate office and /or individual received the information and understands their role in ensuring the continued effectiveness of the use restriction and /or land use control. Recommendation: Reinforcing notice and materials should be sent at least annually.

Priority 2: Moderate correlation between the mechanism's effectiveness and the types of activity the use restriction is intended to address. Initial communication of appropriate materials. Recommendation: Reinforcing notice sent every two years.

Priority 3: Some correlation between the mechanism's effectiveness and the types of activity the use restriction is intended to address. Initial communication of appropriate materials. Recommendation: Reinforcing notice sent every three years.

Table 4. Former Kelly AFB Site Layering Table

A Affected Parcel(s)	B IRP Site(s)/ AOC(s)	C Media Affected	D Goals and Objectives of LUC/IC	E Use Restriction(s)	F LUC/IC LAYERS (LAYERING MECHANISMS) /PRIORITIES			
					F.1 Real Property/ Legal	F.2 Governmental/ Administrative	F.3 Site Controls	F.4 Other
Parcel 12	Southern Groundwater Plume on Base Area: SS036 (Zone 2 Plume Site) and Sites WP021, WP022, (Zone 2 sites)	Ground-water	Prevent exposure to contaminated groundwater.	Prevent use of shallow groundwater for watering. Prevent drinking water well installation.	Use Restrictions in Deed/ Priority 3 Deed notices/ Priority 3	City Ordinance to prevent well installation/ Priority 1 Public notices/ Priority 1	Install fence or other physical barriers to restrict site access./ Priority 1 Install signage and warnings regarding residual contamination./ Priority 1 Monitor and inspect wells in impacted area regularly./ Priority 1 Inspect and monitor remedial systems./ Priority 1 Install and monitor locking caps on wells./ Priority 1	Maintain Administrative Record/ Priority 3 Maintain Information Repositories/ Priority 3

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					F.1 Real Property/ Legal	F.2 Governmental/ Administrative	F.3 Site Controls	F.4 Other
Parcel 12	Southern Groundwater Plume on Base Area: SS036 (Zone 2 Plume Site) and Sites WP021, WP022, (Zone 2 sites)	Ground-water	Protect the integrity of this remedy	Prevent excavation, construction, drilling, or disturbance of remedy	Use Restrictions in Deed/ Priority 3 Deed notices/ Priority 3	Public notices/ Priority 1	Install fence or other physical barriers to restrict site access./ Priority 1 Install signage and warnings regarding residual contamination./ Priority 1 Inspect and monitor remedial systems./ Priority 1	Texas One-Call ("Dig Safe" Program)/ Priority 1 Maintain Administrative Record/ Priority 3 Maintain Information Repositories/ Priority 3

A Affected Parcel(s)	B IRP Site(s)/ AOC(s)	C Media Affected	D Goals and Objectives of LUC/IC	E Use Restriction(s)	F LUC/IC LAYERS (LAYERING MECHANISMS) /PRIORITIES			
					F.1 Real Property/ Legal	F.2 Governmental/ Administrative	F.3 Site Controls	F.4 Other
Parcel 12	SS036 (Plume Site) and Sites WP021, WP022, (Zone 2 sites)	Surface- water	Prevent exposure to contaminated sediment or water.	Prevent use of Leon Creek for Drinking water	Use Restrictions in Deed/ Priority 3	Public notices/ Priority 1	Install signage and warnings regarding residual contami- nation./ Priority 1 Monitor and inspect impacted area regularly./ Priority 1 Inspect and monitor remedial systems./ Priority 1	Maintain Adminis- trative Record/ Priority 3 Maintain Informa- tion Repositories/ Priority 3

A Affected Parcel(s)	B IRP Site(s)/ AOC(s)	C Media Affected	D Goals and Objectives of LUC/IC	E Use Restriction(s)	F LUC/IC LAYERS (LAYERING MECHANISMS) /PRIORITIES			
					F.1 Real Property/ Legal	F.2 Governmental/ Administrative	F.3 Site Controls	F.4 Other
Parcel 12	SS036 (Plume Site) and Sites WP021, WP022, (Zone 2 sites)	Surface- water	Protect the Integrity of the Remedies	Prevent excavation, construction, drilling, or disturbance of remedy	Use Restrictions in Deed/ Priority 3 Deed notices/ Priority 3	Public notices/ Priority 1	Install fence or other physical barriers to restrict site access./ Priority 1 Install signage and warnings regarding residual contami- nation./ Priority 1 Inspect and monitor remedial systems./ Priority 1	Texas One-Call ("Dig Safe" Program)/ Priority 1 Maintain Adminis- trative Record/ Priority 3 Maintain Informa- tion Repositories/ Priority 3

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Parcels 13 and 14	Eastern Ground- water Plume on- and off- Base area: SS037 (Zone 3 Plume Site) and Sites SS040, SS038, ST006, Bldg 360, Bldg 301, SS052 (Zones 3 and 4)	Ground- water	Prevent Exposure to Contaminated Ground-water	Prevent Use of Shallow Ground-water Prevent Drinking Water Well Installation	Use Restrictions in Deed/ Priority 3 Deed notices/ Priority 3	City Ordinance to prevent well instal- lation/ Priority 1 Public notices/ Priority 1	Install fence or other physical barriers to restrict site access./ Priority 1 Install signage and warnings regarding residual contami- nation./ Priority 1 Monitor and inspect wells in impacted area regularly./ Priority 1 Inspect and monitor remedial systems./ Priority 1 Install and monitor locking caps on wells./ Priority 1	Maintain Administrative Record/ Priority 3 Maintain Information Repositories/ Priority 3

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Parcels 13 and 14	Eastern Ground- water Plume on- and off- Base area: SS037 (Zone 3 Plume Site) and Sites SS040, SS038, ST006, Bldg 360, Bldg 301, SS052 (Zones 3 and 4)	Ground- water	Prevent Activities that could result in migration of contamination and adverse impacts on adjoining property	Prevent Use of Shallow Ground-water Prevent Drinking Water Well Installation	Use Restrictions in Deed/ Priority 3 Deed notices/ Priority 3	City Ordinance to prevent well instal- lation/ Priority 1 Public notices/ Priority 1	Install fence or other physical barriers to restrict site access./ Priority 1 Install signage and warnings regarding residual contami- nation./ Priority 1 Monitor and inspect wells in impacted area regularly./ Priority 1 Inspect and monitor remedial systems./ Priority 1 Install and monitor locking caps on wells./ Priority 1	Maintain Administrative Record/ Priority 3 Maintain Information Repositories/ Priority 3

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Parcel 11	Northern Ground-water Plume on- and off-Base area: SS050 (Zone 5 Plume Site) and Sites SS003 and SS045, (Zone 5)	Ground-water	Prevent exposure to contaminated groundwater	Prevent Use of Shallow Ground-water	Use Restrictions in Deed/ Priority 3 Deed notices/ Priority 3	City Ordinance to prevent well installation/ Priority 1 Public notices/ Priority 1	Install fence or other physical barriers to restrict site access./ Priority 1 Install signage and warnings regarding residual contamination./ Priority 1 Monitor and inspect wells in impacted area regularly./ Priority 1 Inspect and monitor remedial systems./ Priority 1 Install and monitor locking caps on wells./ Priority 1	Maintain Administrative Record/ Priority 3 Maintain Information Repositories/ Priority 3

A Affected Parcel(s)	B IRP Site(s)/ AOC(s)	C Media Affected	D Goals and Objectives of LUC/IC	E Use Restriction(s)	F LUC/IC LAYERS (LAYERING MECHANISMS) /PRIORITIES			
					F.1 Real Property/ Legal	F.2 Governmental/ Administrative	F.3 Site Controls	F.4 Other
Parcel 11	Northern Ground-water Plume on- and off-Base area: SS050 (Zone 5 Plume Site) and Sites SS003 and SS045, (Zone 5)	Ground-water	Prevent Activities that could result in Migration of Contamination and adverse impacts on adjoining property	Prevent excavation, construction, drilling, or disturbance of remedy	Use Restrictions in Deed/ Priority 3 Deed notices/ Priority 3	Public notices/ Priority 1	Install fence or other physical barriers to restrict site access./ Priority 1 Install signage and warnings regarding residual contamination./ Priority 1 Inspect and monitor remedial systems./ Priority 1	I Texas One-Call (“Dig Safe” Program)/ Priority 1 Maintain Administrative Record/ Priority 3 Maintain Information Repositories/ Priority 3

A Affected Parcel(s)	B IRP Site(s)/ AOC(s)	C Media Affected	D Goals and Objectives of LUC/IC	E Use Restriction(s)	F LUC/IC LAYERS (LAYERING MECHANISMS) /PRIORITIES			
					F.1 Real Property/ Legal	F.2 Governmental/ Administrative	F.3 Site Controls	F.4 Other
Parcel 11	Northern Ground-water Plume on- and off-Base area: SS050 (Zone 5 Plume Site) and Sites SS003 and SS045, (Zone 5)	Ground-water	Protect Integrity of Remedies	Prevent excavation, construction, drilling, or disturbance of remedy	Use Restrictions in Deed/ Priority 3 Deed notices/ Priority 3	Public notices/ Priority 1	Install fence or other physical barriers to restrict site access./ Priority 1 Install signage and warnings regarding residual contamination./ Priority 1 Inspect and monitor remedial systems./ Priority 1	Texas One-Call (“Dig Safe” Program)/ Priority 1 Maintain Administrative Record/ Priority 3 Maintain Information Repositories/ Priority 3

A Affected Parcel(s)	B IRP Site(s)/ AOC(s)	C Media Affected	D Goals and Objectives of LUC/IC	E Use Restriction(s)	F LUC/IC LAYERS (LAYERING MECHANISMS) /PRIORITIES			
					F.1 Real Property/ Legal	F.2 Governmental/ Administrative	F.3 Site Controls	F.4 Other
Parcel 10	ST010, SS031, SS032, and FT024	Soils	<p>Prevent Exposure to Contaminated Soils</p> <p>Prevent Activities that could Result in Migration of Contamination and Adverse Impacts on Adjoining Property</p> <p>Protect the Integrity of the Remedies</p>	<p>Restricted to non-residential Use</p> <p>Limit Ability to Disturb Subsurface</p> <p>Limit Access to Remedial Systems</p>	<p>Use Restrictions in Deed/Priority 3</p> <p>Deed notices/Priority 3</p>		<p>Install signage and warnings regarding residual contamination./Priority 1</p> <p>Inspect and monitor remedial systems./Priority 1</p>	<p>Texas One-Call (“Dig Safe” Program)/Priority 1</p> <p>Maintain Administrative Record/Priority 3</p> <p>Maintain Information Repositories/Priority 3</p>

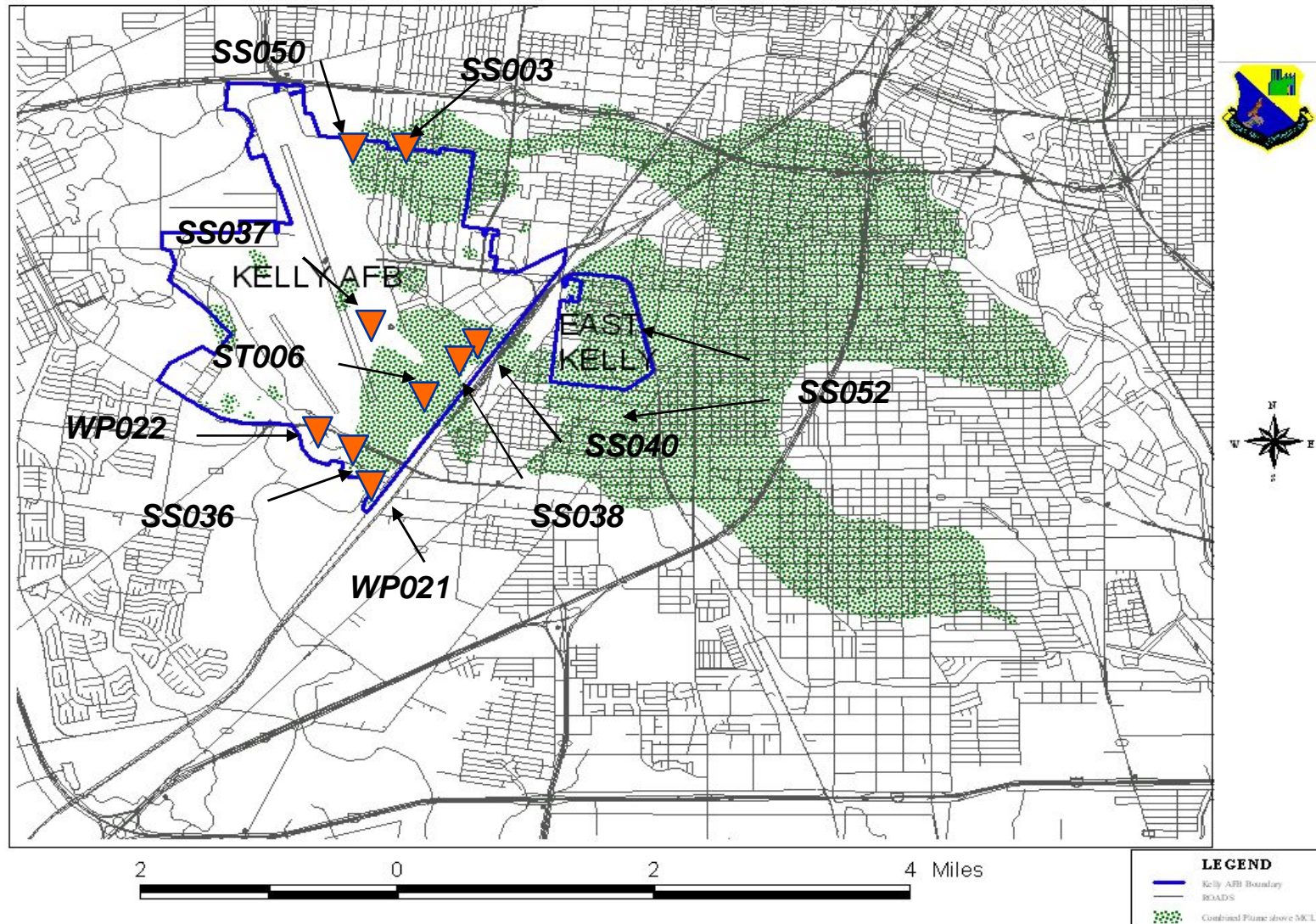
A Affected Parcel(s)	B IRP Site(s)/ AOC(s)	C Media Affected	D Goals and Objectives of LUC/IC	E Use Restriction(s)	F LUC/IC LAYERS (LAYERING MECHANISMS) /PRIORITIES			
					F.1 Real Property/ Legal	F.2 Governmental/ Administrative	F.3 Site Controls	F.4 Other
Parcel 11	SS003 and SS045	Soils	Prevent Exposure to Contaminated Soils Prevent Activities that could Result in Migration of Contaminatio n and Adverse Impacts on Adjoining Property Protect the Integrity of the Remedies	Restricted to non-residential Use Limit Ability to Disturb Subsurface Limit Access to Remedial Systems	Use Restrictions in Deed/ Priority 3 Deed notices/ Priority 3		Install signage and warnings regarding residual contami- nation./ Priority 1 Inspect and monitor remedial systems./ Priority 1	Texas One-Call ("Dig Safe" Program)/ Priority 1 Maintain Adminis- trative Record/ Priority 3 Maintain Informa- tion Repositories/ Priority 3

A Affected Parcel(s)	B IRP Site(s)/ AOC(s)	C Media Affected	D Goals and Objectives of LUC/IC	E Use Restriction(s)	F LUC/IC LAYERS (LAYERING MECHANISMS) /PRIORITIES			
					F.1 Real Property/ Legal	F.2 Governmental/ Administrative	F.3 Site Controls	F.4 Other
Parcel 12	SS042, SS039, LF019, SS002, SS005, SS028, WP022, WP021 and WP034	Soils	Prevent Exposure to Contaminated Soils Prevent Activities that could Result in Migration of Contaminatio n and Adverse Impacts on Adjoining Property Protect the Integrity of the Remedies	Restricted to non-residential Use Limit Ability to Disturb Subsurface Limit Access to Remedial Systems	Use Restrictions in Deed/ Priority 3 Deed notices/ Priority 3		Install signage and warnings regarding residual contami- nation./ Priority 1 Inspect and monitor remedial systems./ Priority 1	Texas One-Call ("Dig Safe" Program)/ Priority 1 Maintain Adminis- trative Record/ Priority 3 Maintain Informa- tion Repositories/ Priority 3

A Affected Parcel(s)	B IRP Site(s)/ AOC(s)	C Media Affected	D Goals and Objectives of LUC/IC	E Use Restriction(s)	F LUC/IC LAYERS (LAYERING MECHANISMS) /PRIORITIES			
					F.1 Real Property/ Legal	F.2 Governmental/ Administrative	F.3 Site Controls	F.4 Other
Parcel 13	SS044, SS040, SS038, ST006, Bldg 360, Former Bldg 301	Soils	Prevent Exposure to Contaminated Soils Prevent Activities that could Result in Migration of Contaminatio n and Adverse Impacts on Adjoining Property Protect the Integrity of the Remedies	Restricted to non-residential Use Limit Ability to Disturb Subsurface Limit Access to Remedial Systems	Use Restrictions in Deed/ Priority 3 Deed notices/ Priority 3		Install signage and warnings regarding residual contami- nation./ Priority 1 Inspect and monitor remedial systems./ Priority 1	Texas One-Call ("Dig Safe" Program)/ Priority 1 Maintain Adminis- trative Record/ Priority 3 Maintain Informa- tion Repositories/ Priority 3

A Affected Parcel(s)	B IRP Site(s)/ AOC(s)	C Media Affected	D Goals and Objectives of LUC/IC	E Use Restriction(s)	F LUC/IC LAYERS (LAYERING MECHANISMS) /PRIORITIES			
					F.1 Real Property/ Legal	F.2 Governmental/ Administrative	F.3 Site Controls	F.4 Other
Parcel 14	SS051 and SS052	Soils	<p>Prevent Exposure to Contaminated Soils</p> <p>Prevent Activities that could Result in Migration of Contamination and Adverse Impacts on Adjoining Property</p> <p>Protect the Integrity of the Remedies</p>	<p>Restricted to non-residential Use</p> <p>Limit Ability to Disturb Subsurface</p> <p>Limit Access to Remedial Systems</p>	<p>Use Restrictions in Deed/Priority 3</p> <p>Deed notices/Priority 3</p>		<p>Install signage and warnings regarding residual contamination./Priority 1</p> <p>Inspect and monitor remedial systems./Priority 1</p>	<p>Texas One-Call (“Dig Safe” Program)/Priority 1</p> <p>Maintain Administrative Record/Priority 3</p> <p>Maintain Information Repositories/Priority 3</p>

Attachment A—Former Kelly AFB Site Map



Attachment B—Acronyms

AFB	Air Force Base
AFRPA	Air Force Real Property Agency
AOC	Area of Concern
BRAC	Base Realignment and Closure
COSA	City of San Antonio
GKDA	Greater Kelly Development Authority
IC	Institutional Control
IRP	Installation Restoration Program
LRIP	Last Remedy in Place
LUC	Land Use Control
LUC/IC	Land Use Control/Institutional Control
MFH	Military Family Housing
N/A	Not Available
NEPA	National Environmental Policy Act
PCE	Tetrachloroethene
POC	Point of Contact
TCE	Trichloroethylene
TCEQ	Texas Commission on Environmental Quality
VOC	Volatile Organic Compound

Attachment C—LUC/IC Parcels, Sites and Zones Cross Reference Table

Parcel	Zone	WIMS ID	Site Description	Status
5	5	ST049	UST, Bldg 38 Base Gas Station	Closed
10	2	ST010	Fuel Site S-9	
10	2	SS031	Sludge Area , SA-3	
10	2	SS032	Sludge Area, SA-4	
10	2	FT024	Fire Training Area, FC-2	
10	2	SS030	IWTP Waste Lagoon, SA-2	Closed
11	5	SS003	Former DPDO Waste Oil Storage Facility, Spill Site S-1	
11	5	SS045	Fuel Spill Site S-10	Closed
11	5	SS050	GW, Zone5, OT-050	
11	5	ST007	Storage Area, S-5	Closed
11	5	SS025	Spill Site, IS-1	Closed
12	2	SS042	Spill Site, CS-2 (+CS2NB)	
12	2	SS039	Incinerator Site, OT-1	
12	2	LF019	Landfill Site D-10	
12	2	SS002	Former IWTP, OT-02	
12	2	SS005	Storage Yard Site S-3	Closed
12	2	SS028	HW Storage Yard S-4A	
12	2	WP033	Drying Beds, SD-1	Closed
12	2	SS036	GW, Zone2, OT036	
12	2	WP022	Chemical Evaporation Pit, E-1	
12	2	WP021	Chemical Evaporation Pit, E-3/SD-1	
12	2	WP034	Sludge Bed, SD-2	
13	3	ST047	UST, 386	Closed
13	3	ST048	UST, 308	Closed
13	3	SS044	IWC line, OT044	
13	3	ST038	Spill Site, S-8 (landfill)	
13	3	SS040	Plating Shop, OT-2, Site MP	
13	3	SS037	GW, Zone3 OT037	
13	3	SS038	Spill Area, Fuel near B329, S-8	
13	3	ST006	Spill Area, Fuel from UST 371, 300 Area, S-4	
13	3	None	Kelly LOC, Bldg 360	
13	3	None	Kelly LOC, Former Bldg 301	
13	3	ST046	UST, Bldg	Closed
13	5	ST008	Fuel Spill Area, S-6 Moved from Zone 3 to Zone 5. Existence of site uncertain.	Closed
14	4	SS051	IWCSGW, Zone 4, OT051	
14	4	SS052	OT052 (Zone 4 GW)	

Parcel	Zone	WIMS ID	Site Description	Status
14	4	SS004	Storage Area, S-2, Yard N. SS004 (site S-2) is comprised of two yards, Yard N and Yard 13, both are closed.	Closed
14	4	SS009	Storage Area, S-7	Closed

Attachment D – Outstanding Issues

As of December 12, 2002:

1. Schedule date for annual data update.
2. Need to resolve the public benefit conveyance issue.
3. Get list of easement holders from Bob Lee or Indar Schabra (for table 3)
4. Get POC information for Lackland 37th Engineering Squadron at Lackland AFB – for Table 3 POC List.
5. Determine SAWS water quality division POC info for
 - “Groundwater Use Restrictions” bullet in Table 3.
 - “Well installation restrictions in zone of contamination” bullet in Table 3.
 - “Water Reuse Restrictions (e.g., irrigation, watering...)” in Table 3.
6. Determine Bexar Met department and POC info for
 - “Well Installation Restrictions in Zone of Contamination” in Table 3.
 - “Well installation Restrictions in Areas That May Influence the Remedial System” in Table 3.
7. Get position of Abbi Power at TCEQ Region 13 for “Environmental Laws Regarding Reuse of Impacted Soil” bullet in Table 3.